



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
---------------	-------------	----------------------	---------------------

08/324,443 10/17/94 DOYLE

M 02307553

B3M1/0124

TOWNSEND AND TOWNSEND  
KHOURIE AND CREW  
STUART STREET TOWER  
ONE MARKET PLAZA  
SAN FRANCISCO CA 94105

EXAMINER

ART UNIT: 1 PAPER NUMBER: 1

2317

DATE MAILED: 01/24/97

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☐ This application has been examined ☒ Responsive to communication filed on 1-8-97 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

**Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited by Examiner, PTO-892.        | 2. <input type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.             | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152.       |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/>   |

**Part II SUMMARY OF ACTION**

1. ☒ Claims 1-56 are pending in the application.  
Of the above, claims \_\_\_\_\_ are withdrawn from consideration.
2. ☐ Claims \_\_\_\_\_ have been cancelled.
3. ☐ Claims \_\_\_\_\_ are allowed.
4. ☒ Claims 1-56 are rejected.
5. ☐ Claims \_\_\_\_\_ are objected to.
6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.
7. ☒ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on: \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved; ☐ disapproved (see explanation).
12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other \_\_\_\_\_

EXAMINER'S ACTION

**Part III DETAILED ACTION**

The Wynne reference is withdrawn in view of Applicant's Rule 131 Declaration filed 01-08-97.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.*

RECEIVED

**Claims 1-5, 10-14 and 44-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over HyperNet as disclosed by Wynne et al. in "Lean Management, Group Support Systems, and Hypermedia: A combination whose time has come" and further in view of Hansen "Andrew as a Multiparadigm Environment for Visual Languages".**

As per claim 1, Wynne disclosed a method for running an application program in a computer network environment essentially as claimed, comprising:

providing at least one client workstation and one network server coupled to said network environment, wherein said network

environment is a distributed hypermedia environment [

Abstract "world-wide over INTERNET"];

executing, at said client workstation, a browser application [p.113 col.1 2nd paragraph "browser"], that parses a distributed hypermedia document and initiates processes specified in the document [p.113 "Active link"];

Wynne did not specifically disclose the document having text formats. It is not clear whether the HyperNet's hypermedia documents disclosed by Wynne uses text formats. However it is well known in the art at the time of the invention to form hypermedia documents using text formats (e.g. SGML, HTML, etc.). Hansen teaches to use text because it is machine independent so the result is more portable [p.257 4th paragraph]. Hence, one of ordinary skill in the art would have been motivated to use text formats to form hypermedia document.

Wynne teaches utilizing browser to display, on said client workstation, a hypermedia document received over said network from said server, wherein said first hypermedia document is displayed within a first browser-controlled window [inherent] on said client workstation and wherein said first distributed hypermedia document includes an embed text format [inherent in the system as modified] that specifies the location of an object external to the first distributed hypermedia document and that specifies type information utilized by said browser to identify

and locate an executable application [p.113 col.1 4th paragraph - "Active links"] external to the first distributed hypermedia document;

invoking, with said browser application, said executable application [p.113 col.1 1st paragraph] to display and process said object.

Wynne does not disclose displaying and process said object within the first browser-controlled window while a portion of said first distributed hypermedia document continues to be displayed within said browser-controlled window. The external application is launched into a separate window to process the object [p. 113 col.1 lines 5-10].

Hansen teaches "it may be adequate to display each sublanguage element in a separate window, but this runs the risk of chaotic imagery among which it is difficult to discern the relationships among program segments. Instead, the author should have the power to organize the program fragments for perusal by the reader. The organization itself, together with commentary, aids the reader in comprehending the program." [p.256 col.1<sup>2</sup>]. Hence, it would have been obvious for one of ordinary skill in the art to provide external application to display and process the object within the browser-controlled window because it would have improved the system by reducing clustering of the display and aiding the reader comprehension of the hypermedia document.

As per claim 2, Wynne disclose interactively controlling the executable application via communication over the network [p.113 col.2 "UPLINK", "DNLINK", "BILINK"].

As per claim 3, it is apparent that the network server [source] execute one or more instructions in response to commands from a client [DNLINK] and sending information from said network server to the client workstation in response to said executed instructions.

As per claim 4, it is inherent that the instruction for controlling the object reside on the client workstation [Wynne's p.113 col.1 lines 5-12"].

As per claim 5, it is apparent in the system as modified that communication would continue to be exchange between the controllable application and the browser in order for the controllable application to control the object within the browser's window.

As per claims 10-14, Wynne discloses that HyperNet communicates over the Internet. Hence, it is apparent that the HyperNet would use ISO TCP/IP standard and Hypertext Transfer Protocol. It would have been obvious for one of ordinary skill in the art at the time of the invention to use ISO TCP/IP standard and Hypertext Transfer Protocol because these are well

defined standard for communicating hypermedia documents over the Internet.

As per claim 44, it is rejected under similar rationale as for claim 1 above.

As per claims 45-48, they are rejected under similar rationale as for claims 2-5 above.

Claims 6-9, and 49-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynne et al. in "Lean Management, Group Support Systems, and Hypermedia: A combination whose time has come", Hansen "Andrew as a Multiparadigm Environment for Visual Languages", and further in view of Rizzo "What's OpenDoc?" (prior art submitted by applicant).

As per claims 6-9 and 49-52, The applied references do not specifically disclose application being a multi-dimension viewer, a spreadsheet, a database, or word processor program. Rizzo discloses a systems that allows for embedding object of different applications (word processing, spreadsheet, database, movie) in one document and manipulation of the object within the document using functions of the corresponding application. Hence, it was well within the skill on one of ordinary skill in the art to provide controllable application for database, spreadsheet, word processing, etc. functions. The type of program provided would have been a matter of design choice.

As per claim 53, It would have been obvious for one of ordinary skill in the art at the time of the invention to use Hypertext Markup Language because it is a well defined standard for forming hypermedia documents.

Claims 15, 17-23, 24-33, 34-43, 54, 55, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wynne et al. in "Lean Management, Group Support Systems, and Hypermedia: A combination whose time has come", Hansen "Andrew as a Multi-paradigm Environment for Visual Languages", and further in view of Moran "Tele-Nice-Slicer: A New Tool for the Visualization of Large Volumetric Data".

As per claim 15, it is rejected under similar rationale as for claim 1 above. Wynne and Hansen do not specifically teach a multidimensional data visualization application.

Moran discloses a distributed system for interactive control and visualization of graphical object through communication over network. Moran teaches determining orientation and rendering of images by sending command comprising of text fields [p.3 col.1] over communication network.

It would have been obvious for one of ordinary skill in the art to combine Moran teaching with Wynne because it would have improved the system to provide powerful image visualization, presentation and control to scientists world wide.

Serial Number:08/324,443  
Art Unit: 2317

-8-

As per claims 17-22, the recited limitations - volume visualization, 2d image, image analysis, animated sequences, geometric viewer, and molecular modeling - would have been a matter of design choice because they are merely well known visualization methods.

As per claim 23, it is apparent in the system as modified that communication continue to be exchange between the multidimensional data visualization application and the browser in order for the visualization application to control the object within the browser's window.

As per claim 24, it is rejected under similar rationale as for claim 15 above. The references do not specifically disclose the step of transferring ..., accepting ..., executing ..., communicating ..., using ... The steps recited is inherent in the prior art as modified because:

It is well known in the art, at the time of the invention, that HTML documents contains links specified by URL's. It is known that HTML documents transfers involves HTTP protocol messages. The process involves:

transferring, over the network, a hypermedia document [the HTML document] with embedded objects [URL links, mapped images, fill-in forms, etc.] from a server computer to the client computer;



parsing the document by the browser to locate reference to external objects [URL's, images, etc.];

accepting first signals from the user input device [clicking on an URL link, or a mapped image, or a form's 'submit' button]

issuing commands [HTTP message with the linked URL, or coordinates where the mapped image was clicked, or the form's content] from the client computer to a first computer in response to the signal [it is known that an HTTP message in an HTML document can direct to any computer connected to the Internet that accept HTTP protocol];

Moran teaches executing instructions by a first additional computer and generate information about manipulating the embedded object; communicating the information to the client; and using the client to manipulate the object according to the communicated information [Apparent from p.3 "TNSD client functionality" and "TNSD Server Functionality"].

As per claims 25, 27, the document is a hypermedia document [Wynne p.112 col.2 3rd paragraph].

As per claim 26, It would have been obvious for one of ordinary skill in the art to have multiple computers to response

Serial Number:08/324,443  
Art Unit: 2317

-10-

to issued commands because it would have distributed the processing load.

As per claims 28, 30, and 32 the references do not specifically disclose multi-dimensional image displayable in plurality of orientations, and function to determine the new orientation and rendering of image. The type of objects and functions provided would have been a matter of design choice.

Moran discloses a distributed system for interactive control and visualization of graphical object through communication over network. Moran teaches determining orientation and rendering of images by sending command comprising of text fields [p.3 col.1] over communication network.

It would have been obvious for one of ordinary skill in the art to combine Moran teaching with Wynne because it would have improved the system to provide powerful image visualization, presentation and control to scientists world wide.

As per claims 29, 31, 33, Wynne teaches the document is a hypermedia document [Wynne p.112 col.2 3rd paragraph].

As per claims 34, it is rejected under similar rationale as for claim 24 above.

Moran does not specifically disclose a second server. However, it would have been obvious for one of ordinary skill in the art to provide plurality of servers to speed up processing.

As per claims 35, 37, 39, 41, and 43, Wynne teaches the system is a distributed hypermedia environment [Wynne p.112 col.2 3rd paragraph].

As per claim 36, Moran teaches distributing the processing on various computers [client - server]. It would have been obvious for one of ordinary skill in the art to distribute the processing to the machine such that the instructions is executed faster.

As per claims 38 and 40, Moran teaches determining orientation and rendering of images [p.2 - p.3].

As per claim 42, Moran teaches dynamically manipulate the object [p.2 - zoom]. It is apparent that the system as modified would accept signal from user input to indicate a second orientation of an object.

As per claim 54, it is rejected under similar rationale as for claim 15 above.

As per claim 55, it is rejected under similar rationale as for claim 24 above.

Serial Number: 08/324,443  
Art Unit: 2317

-12-

As per claim 56, it is rejected under similar rationale as for claim 34 above.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dung Dinh whose telephone number is (703) 305-9655. The examiner can normally be reached on Monday-Thursday from 7:00 AM - 4:30 PM. The examiner can also be reached on alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached at (703) 305-9717. The fax phone number for this group is (703) 308-5359.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

Dung Dinh  
Jan. 23, 1997

2  
THOMAS C. LEE  
SUPERVISORY PATENT EXAMINER  
230